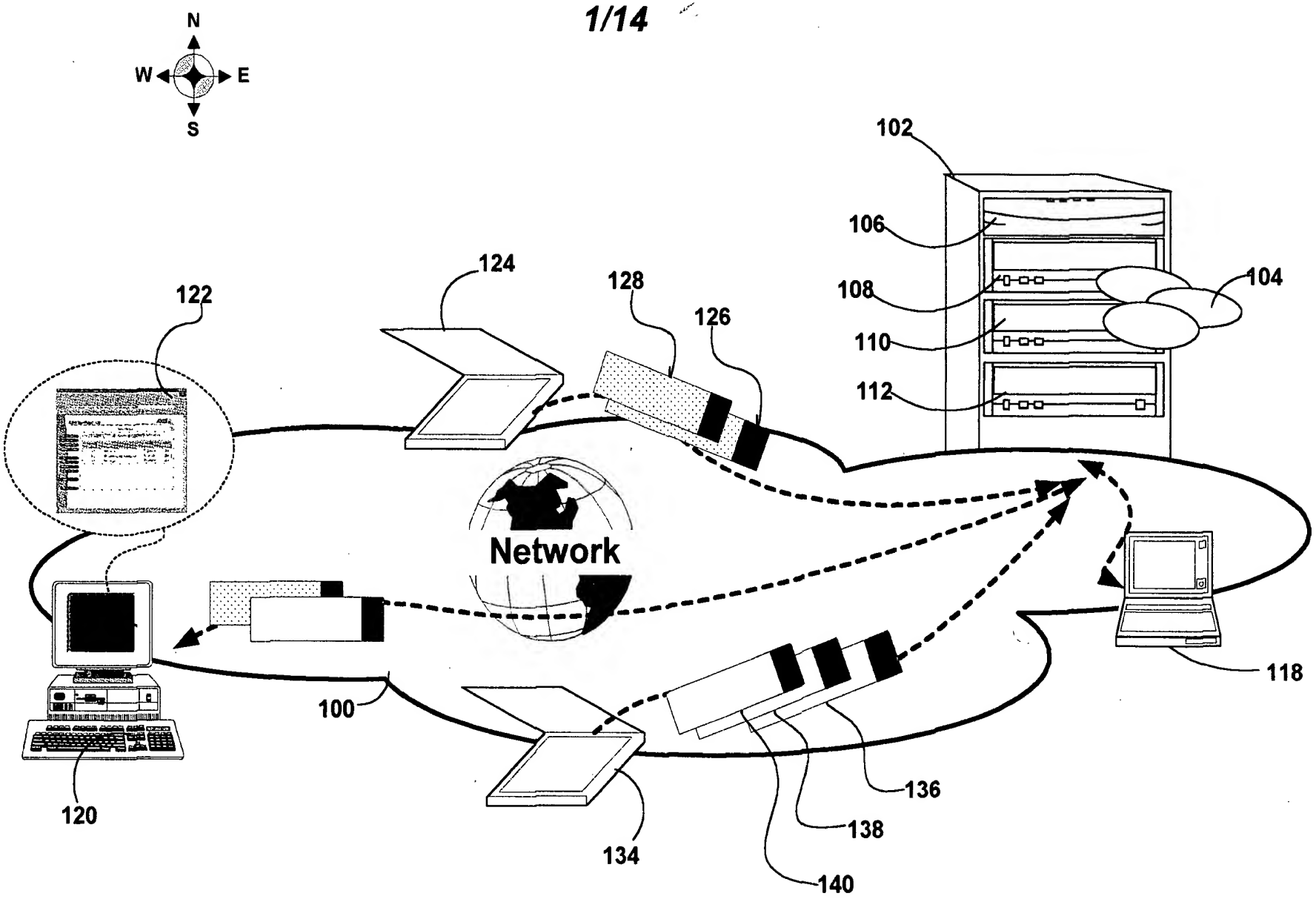
N
W
E
S
102
106
104
108
110
112
124
128
126
122
Network
100
118
120
136
138
134
140

FIG. 1

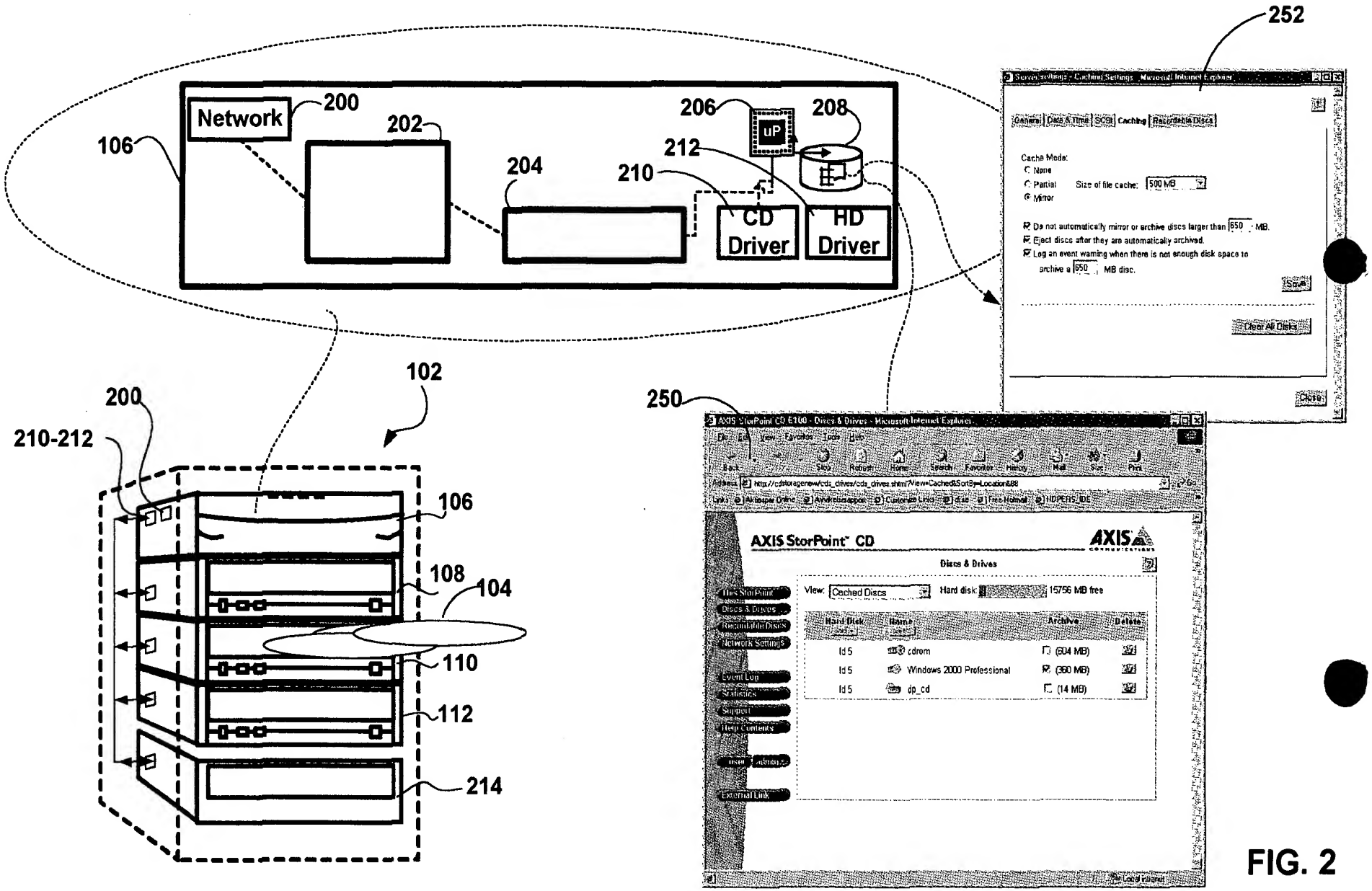
252
Network
200
202
106
206
uP
208
212
204
210
CD Driver
HD Driver
Cache Mode:
None
Partial
Size of file cache:
500 MB
Mirror
Do not automatically mirror or archive discs larger than
650
MB.
Eject discs after they are automatically archived.
Log an event warning when there is not enough disk space to archive a
650
MB disc.
Save
Clear All Disks
Close
102
200
210-212
250
106
108
104
110
112
214
AXIS StorPoint™ CD
AXIS
Discs & Drives
View:
Cached Discs
Hard disk:
15756 MB free
Hard Disk
Name
Archive
Delete
Id 5
cdrom
(604 MB)
Id 5
Windows 2000 Professional
(360 MB)
Id 5
dp_cd
(14 MB)

FIG. 2

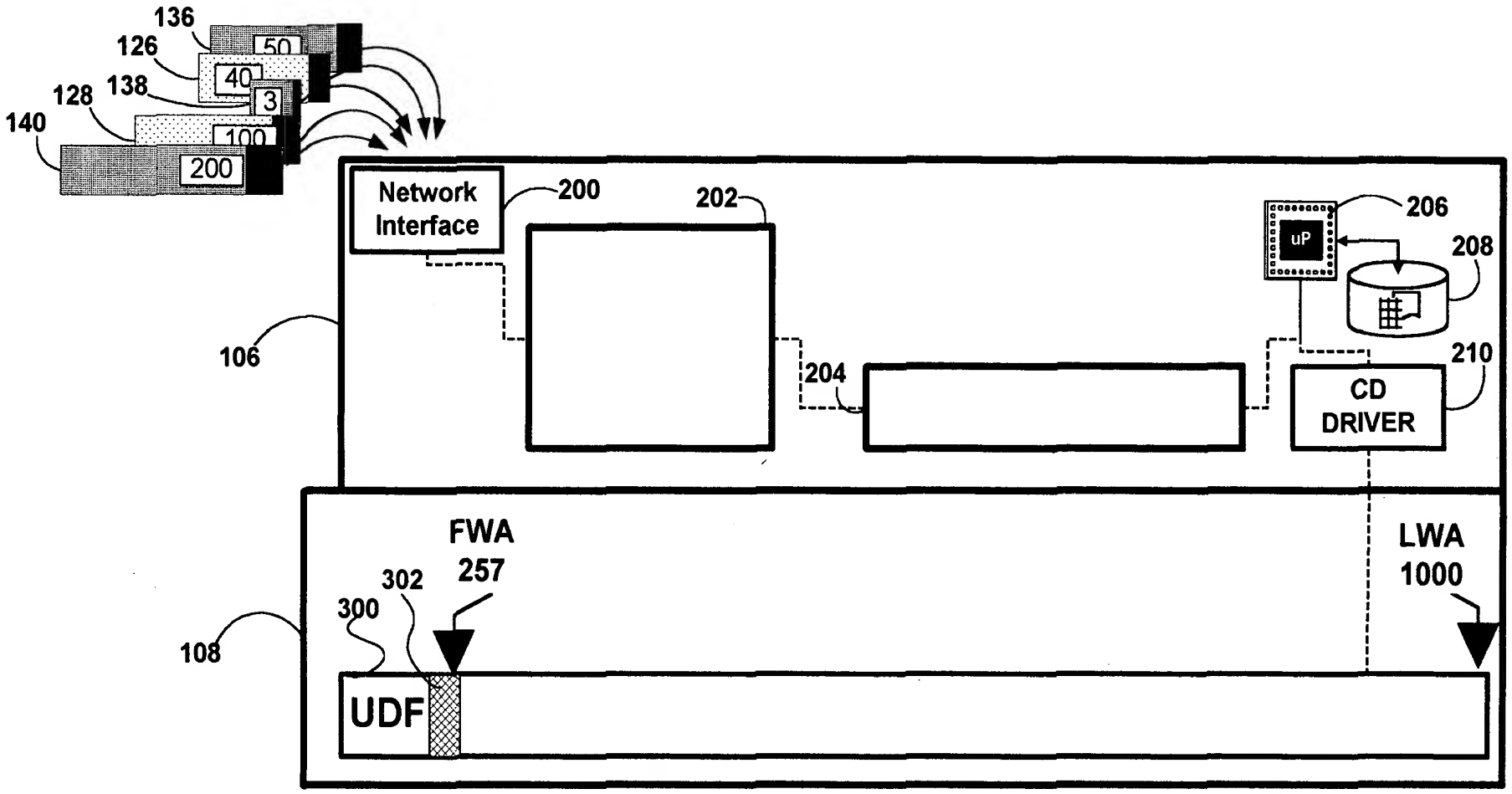
136
126
128
138
140
50
40
3
100
200
Network Interface
200
202
206
uP
208
106
204
210
CD DRIVER
FWA
257
302
300
LWA
1000
108
UDF

FIG. 3A

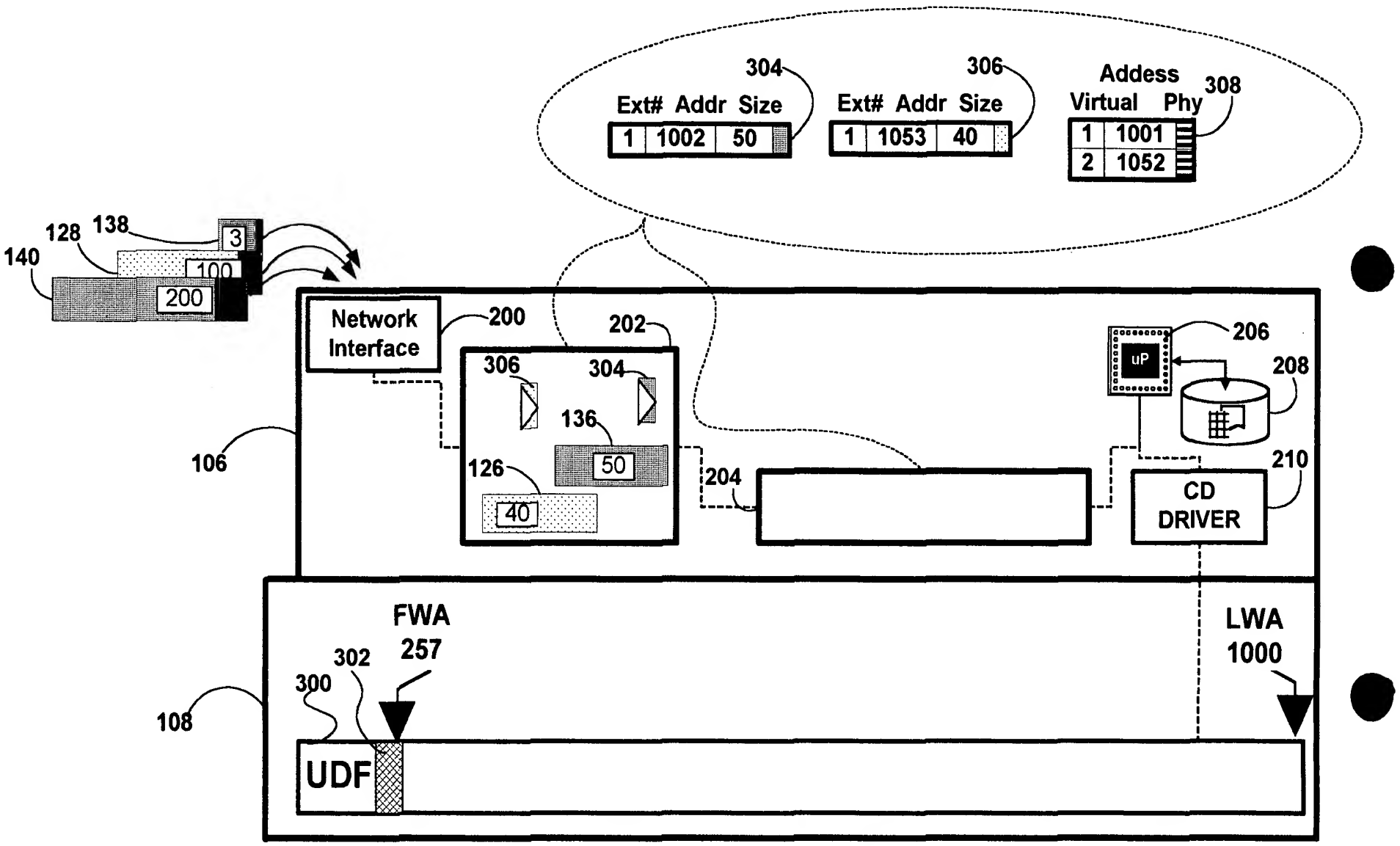
304
Ext# Addr Size
1 1002 50
306
Ext# Addr Size
1 1053 40
Addess
Virtual Phy
308
1 1001
2 1052
128
138
140
3
100
200
Network Interface
200
202
306
304
136
50
126
40
106
204
uP
206
208
210
CD DRIVER
FWA
257
302
300
108
UDF
LWA
1000

FIG. 3B

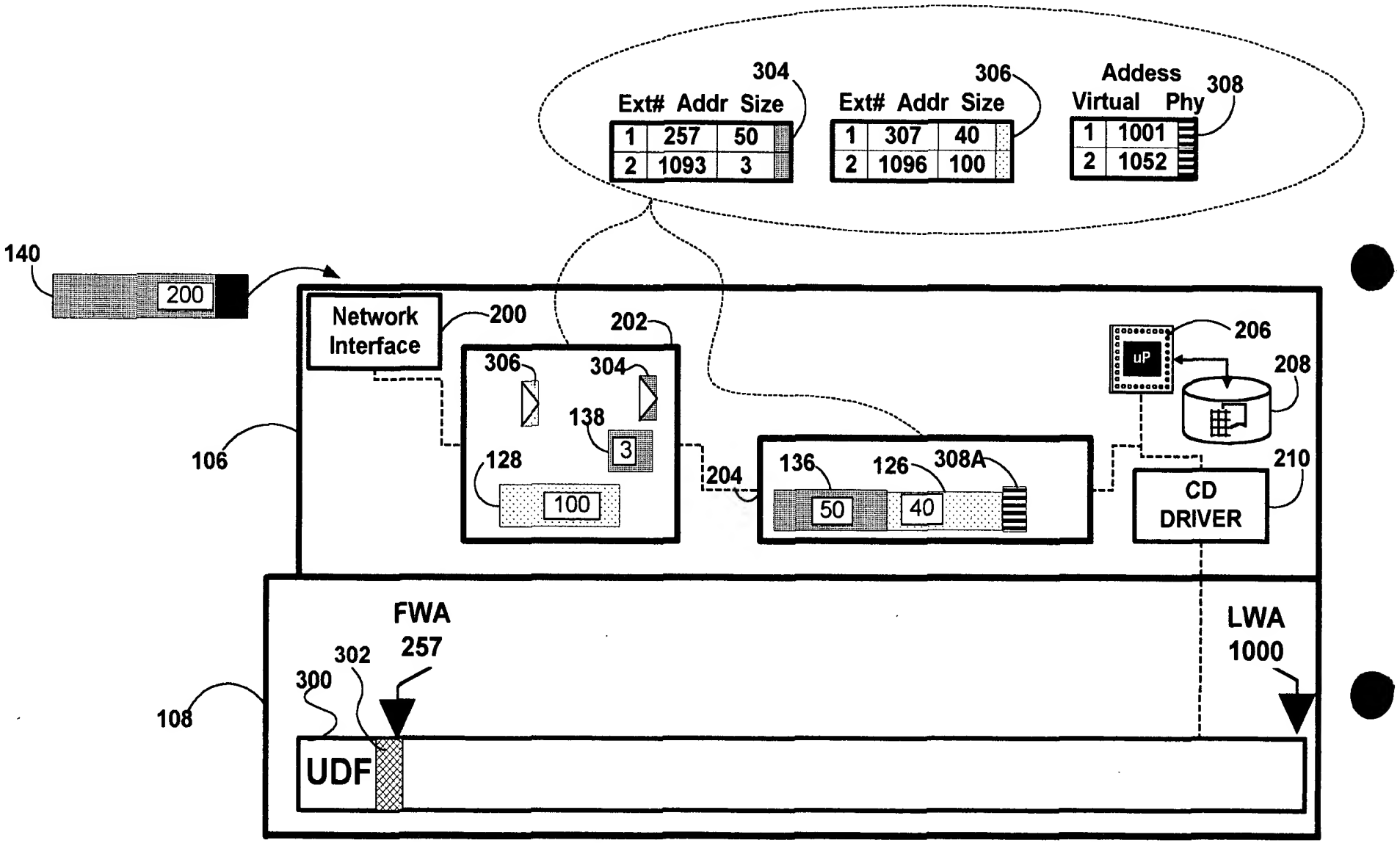
304
Ext# Addr Size
1 257 50
2 1093 3
306
Ext# Addr Size
1 307 40
2 1096 100
Addess
Virtual Phy
308
1 1001
2 1052
140
200
Network Interface
200
202
306
304
138
3
128
100
106
204
136
126
308A
50
40
uP
206
208
210
CD DRIVER
FWA
257
302
300
108
UDF
LWA
1000

FIG. 3C

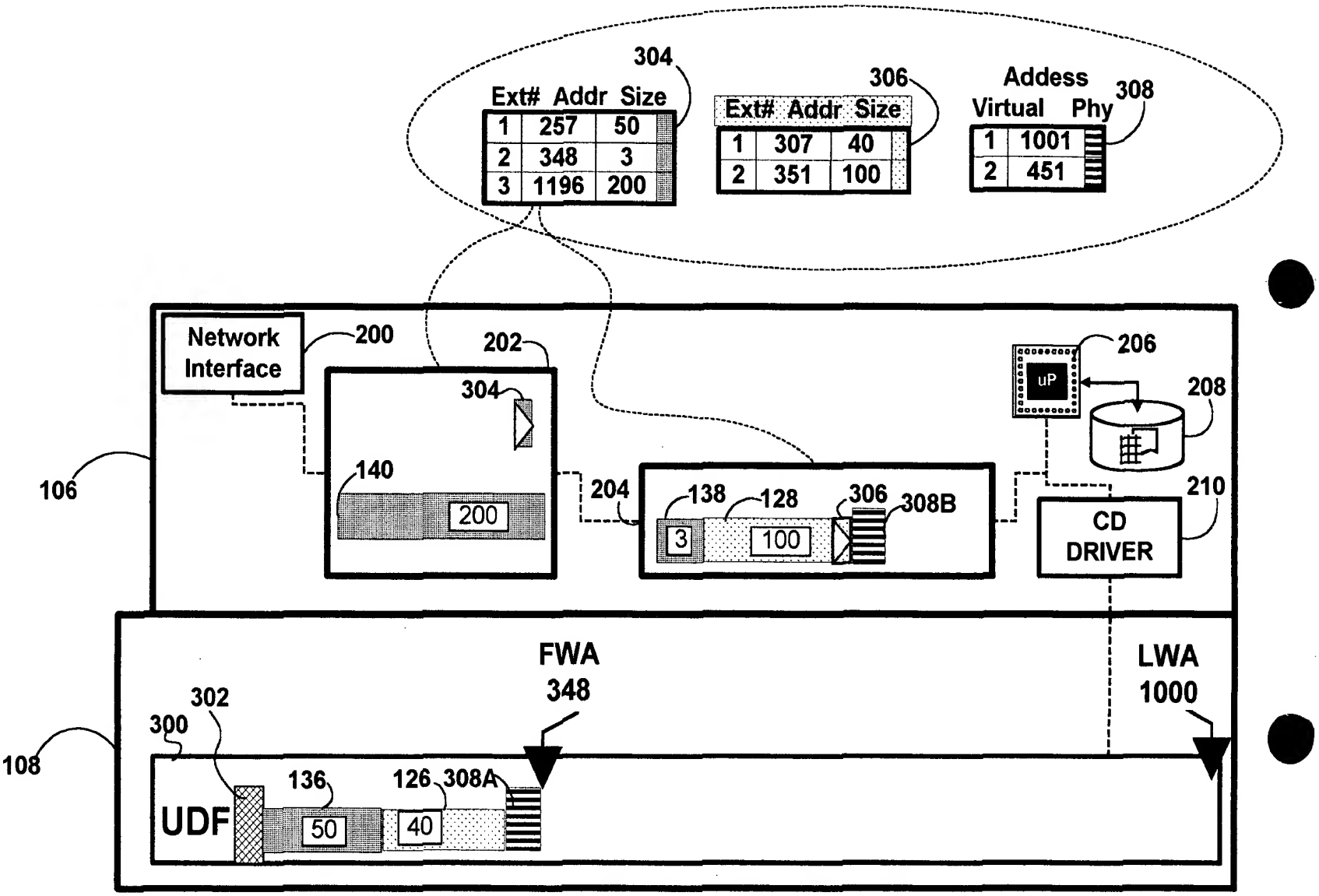
304
Ext# Addr Size
1 257 50
2 348 3
3 1196 200
306
Ext# Addr Size
1 307 40
2 351 100
Addess
Virtual Phy
308
1 1001
2 451
Network Interface
200
202
304
140
200
106
204
138
128
306
308B
3
100
206
uP
208
210
CD DRIVER
FWA
348
LWA
1000
302
300
108
UDF
136
126
308A
50
40

FIG. 3D

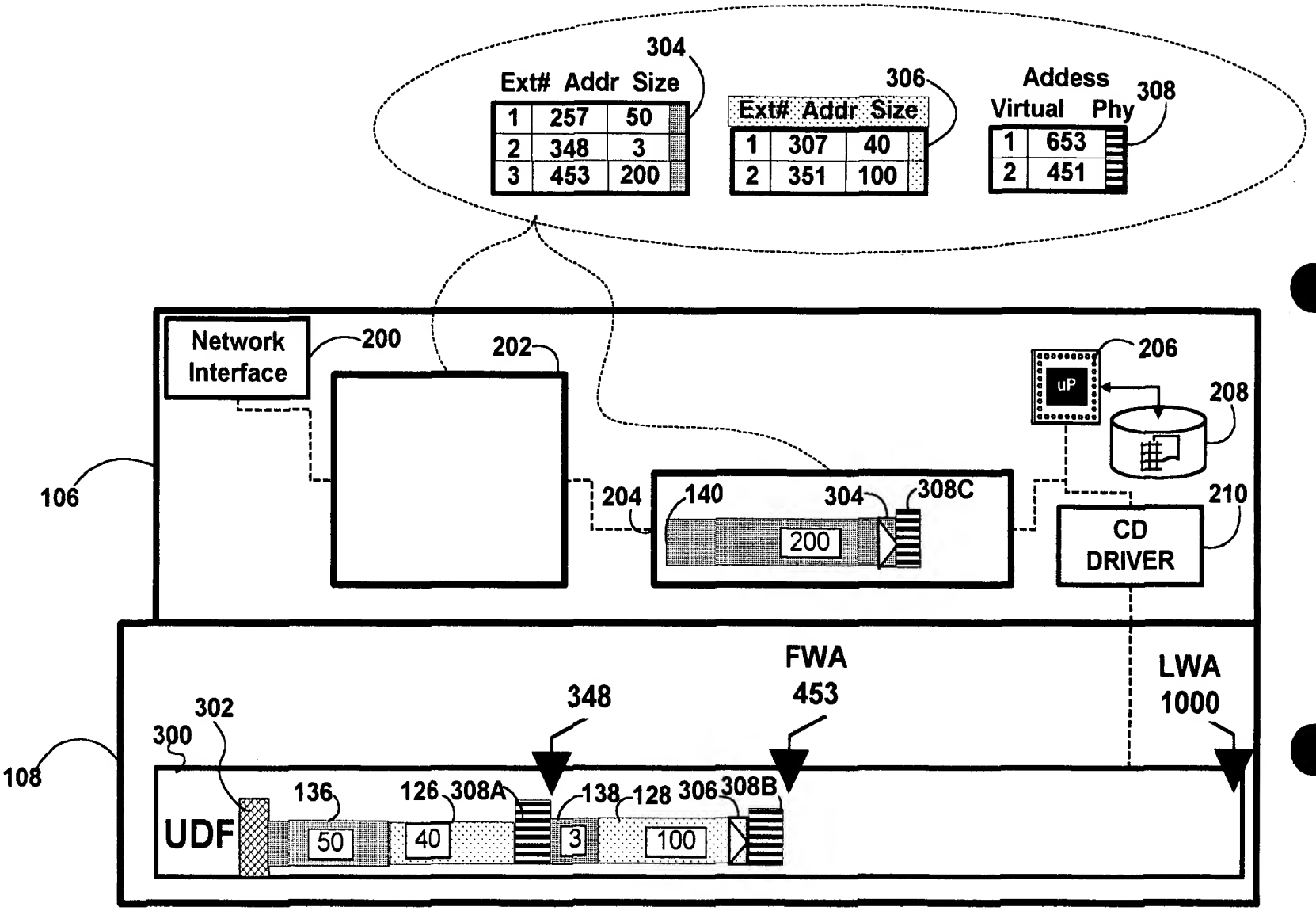
304
Ext# Addr Size
1 257 50
2 348 3
3 453 200
306
Ext# Addr Size
1 307 40
2 351 100
Addess
Virtual Phy
308
1 653
2 451
Network Interface
200
202
206
uP
208
106
204
140
304
308C
200
210
CD DRIVER
FWA
453
348
LWA
1000
302
300
108
UDF
136
126
308A
138
128
306
308B
50
40
3
100

FIG. 3E

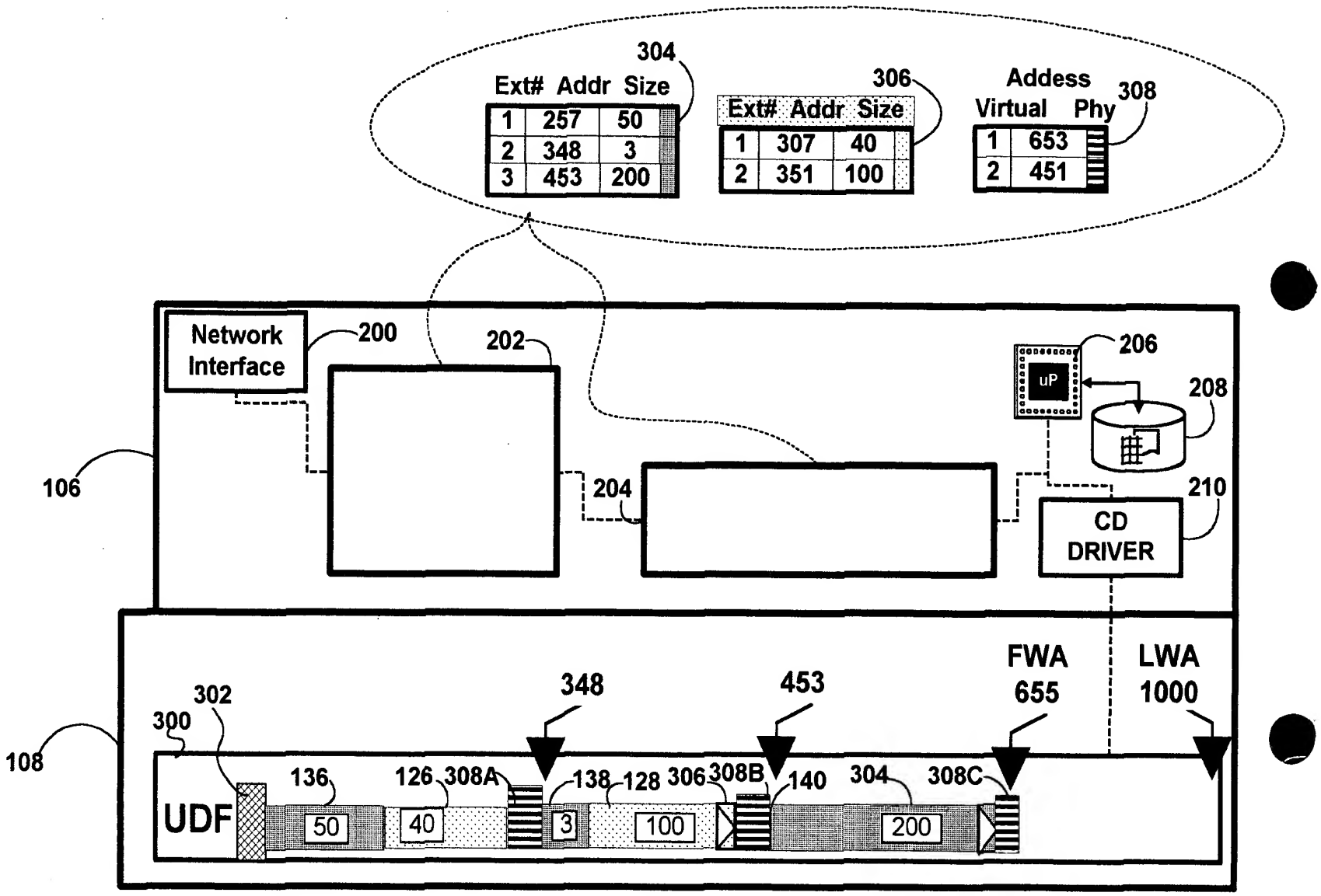
304
Ext# Addr Size
1 257 50
2 348 3
3 453 200
306
Ext# Addr Size
1 307 40
2 351 100
Addess
Virtual Phy
308
1 653
2 451
Network Interface
200
202
206
uP
208
106
204
210
CD DRIVER
FWA 655
LWA 1000
348
453
302
300
108
UDF
136
126
308A
138
128
306
308B
140
304
308C
50
40
3
100
200

FIG. 3F

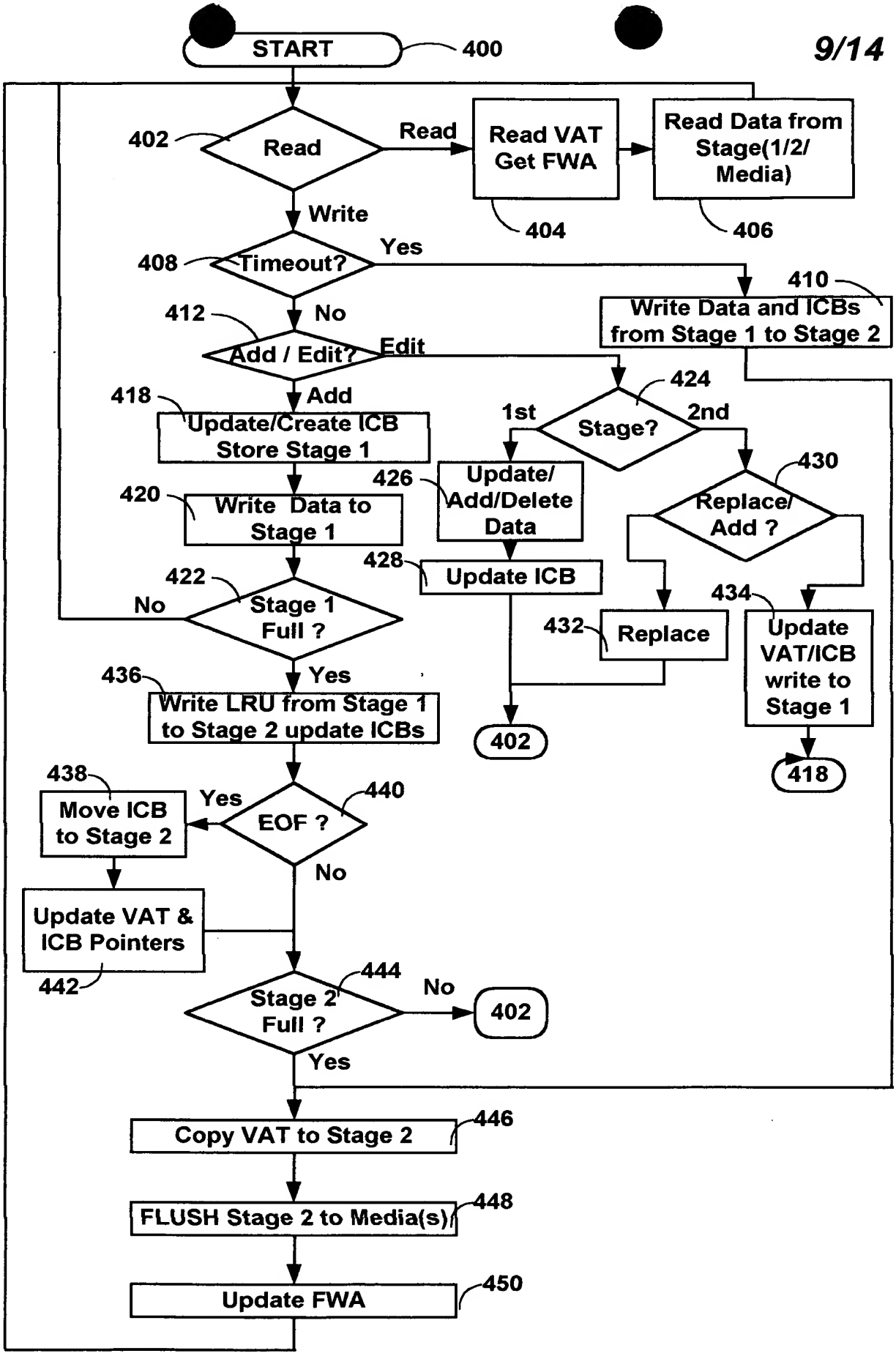


FIG. 4A

0008024-090303

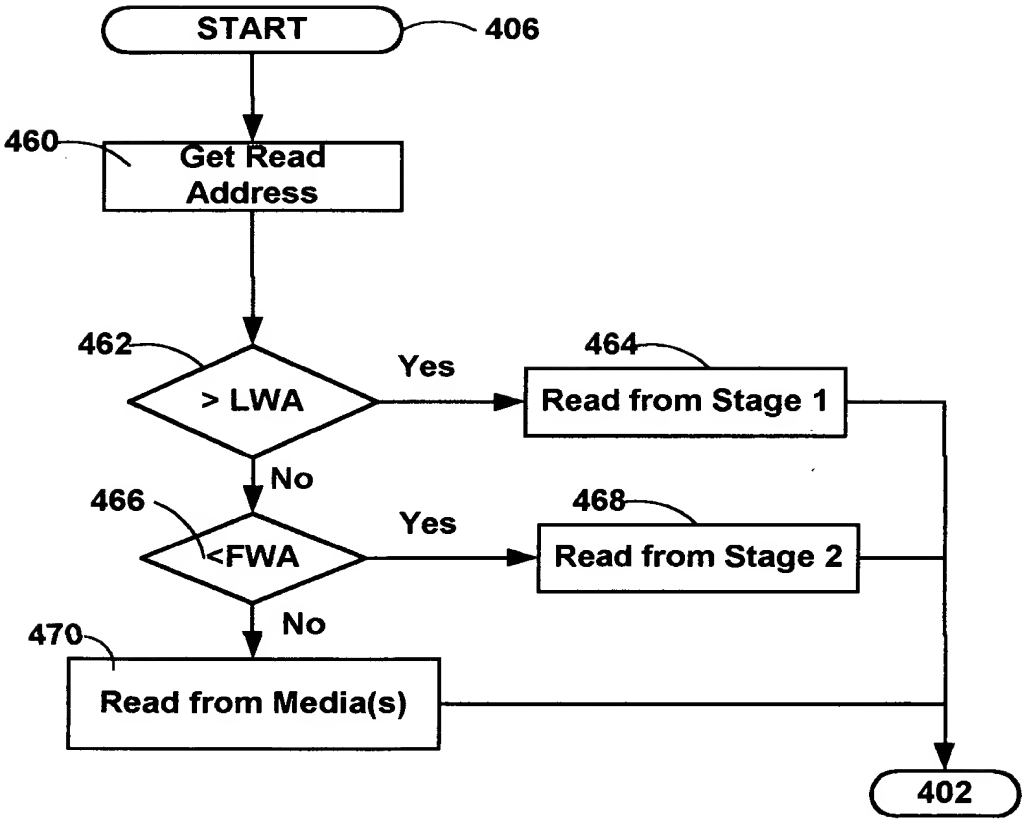
START
406
460
Get Read Address
462
> LWA
Yes
464
Read from Stage 1
No
466
<FWA
Yes
468
Read from Stage 2
No
470
Read from Media(s)
402

FIG. 4B

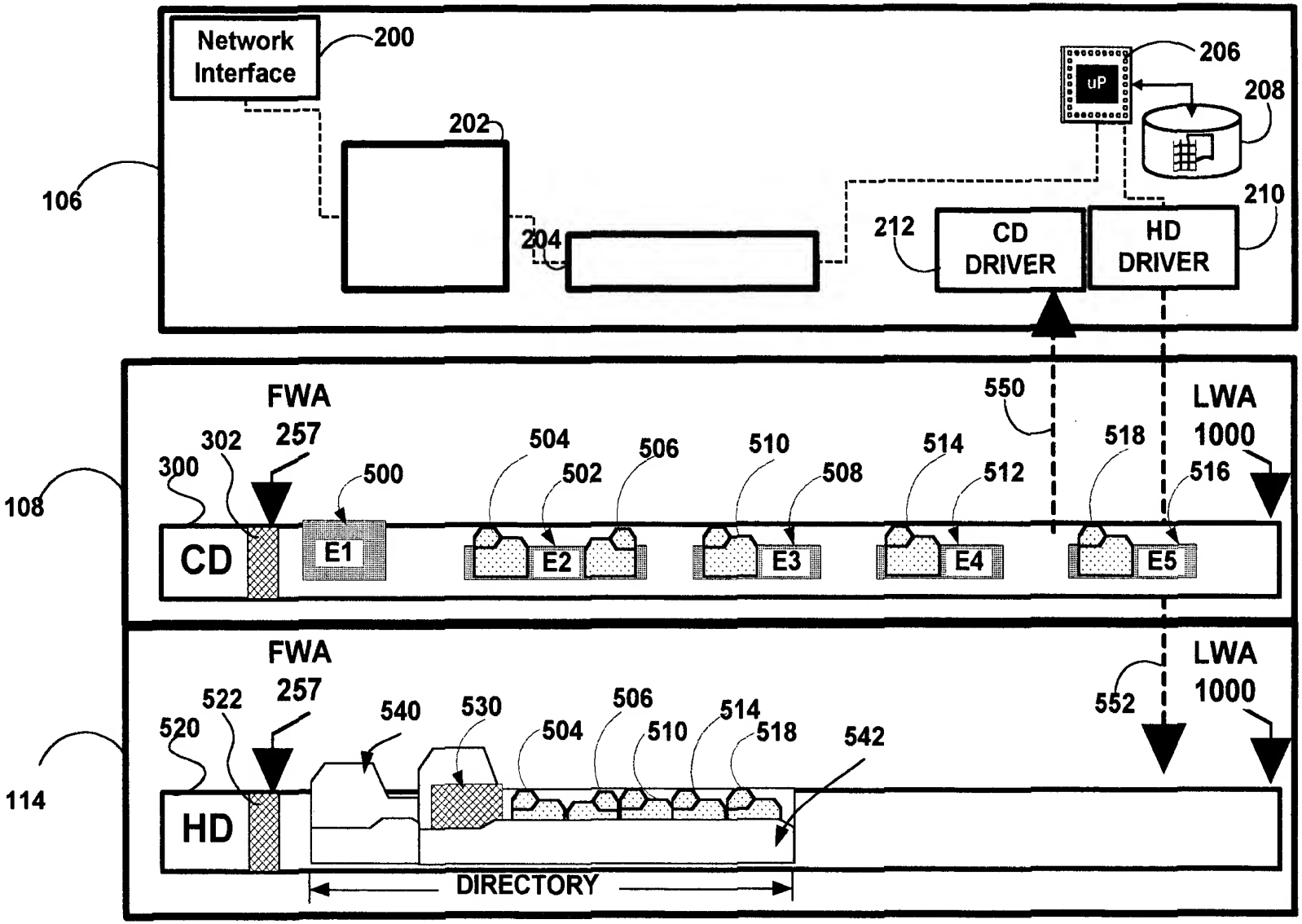
Network Interface
200
202
204
106
206
uP
208
210
212
CD DRIVER
HD DRIVER
108
FWA
257
300
302
500
504
502
506
510
508
514
512
518
516
550
LWA
1000
CD
E1
E2
E3
E4
E5
114
FWA
257
520
522
540
530
504
506
510
514
518
542
552
LWA
1000
HD
DIRECTORY

FIG. 5

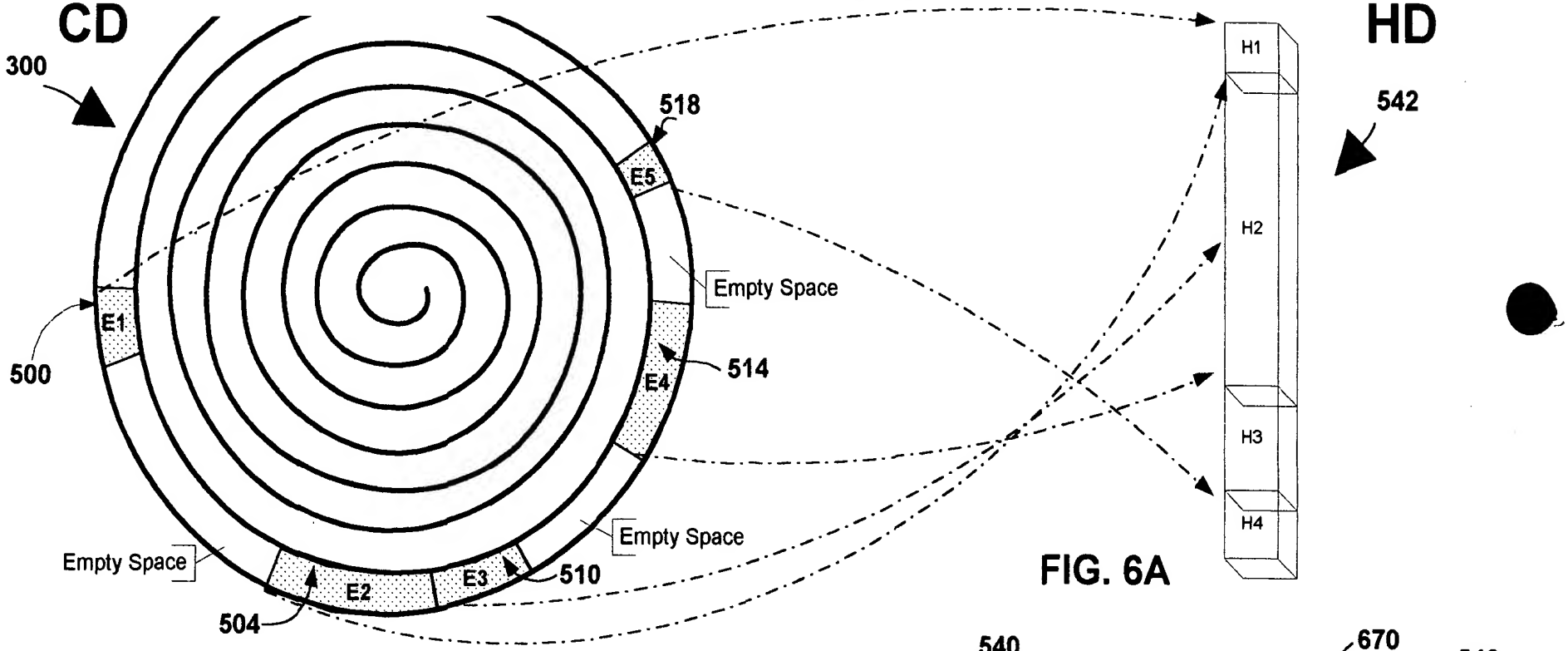


FIG. 6A

540

| CD | | | | HARD DRIVE | | | |
|---|---|---|---|---|---|---|---|
| Ext# | Offset | Size | Content | Ext# | Offset | Status | Cache |
| E1 | 10 | 2 | Pointers | H1 | 0 | Done | Mirror |
| E2 | 14 | 26 | File 1,2 | H2 | 2 | Done | |
| E3 | 40 | 16 | File 3 | | | | |
| E4 | 60 | 8 | File 4 | H3 | 44 | Progress | |
| E5 | 70 | 3 | File 5 | H4 | 52 | Progress | |

652 654 656 658 660 662 664 666

FIG. 6B

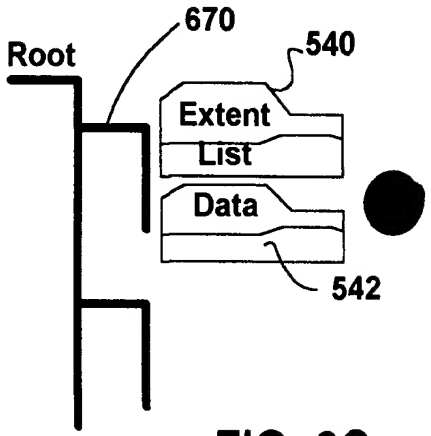


FIG. 6C

Extent....FileSystem Driver

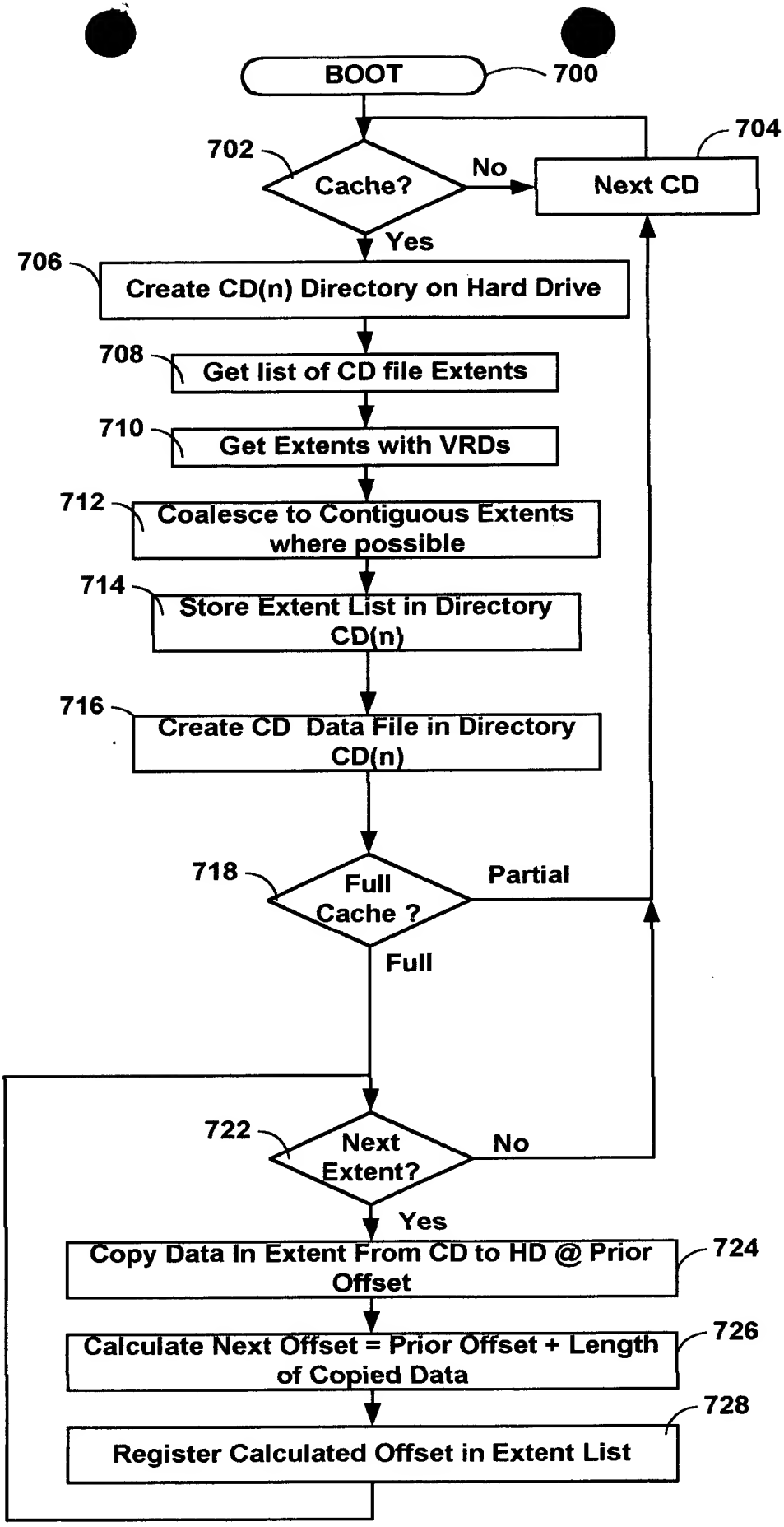
BOOT
700
Cache?
702
No
Next CD
704
Yes
Create CD(n) Directory on Hard Drive
706
Get list of CD file Extents
708
Get Extents with VRDs
710
Coalesce to Contiguous Extents where possible
712
Store Extent List in Directory CD(n)
714
Create CD Data File in Directory CD(n)
716
Full Cache ?
718
Partial
Full
Next Extent?
722
No
Yes
Copy Data In Extent From CD to HD @ Prior Offset
724
Calculate Next Offset = Prior Offset + Length of Copied Data
726
Register Calculated Offset in Extent List
728

FIG. 7A

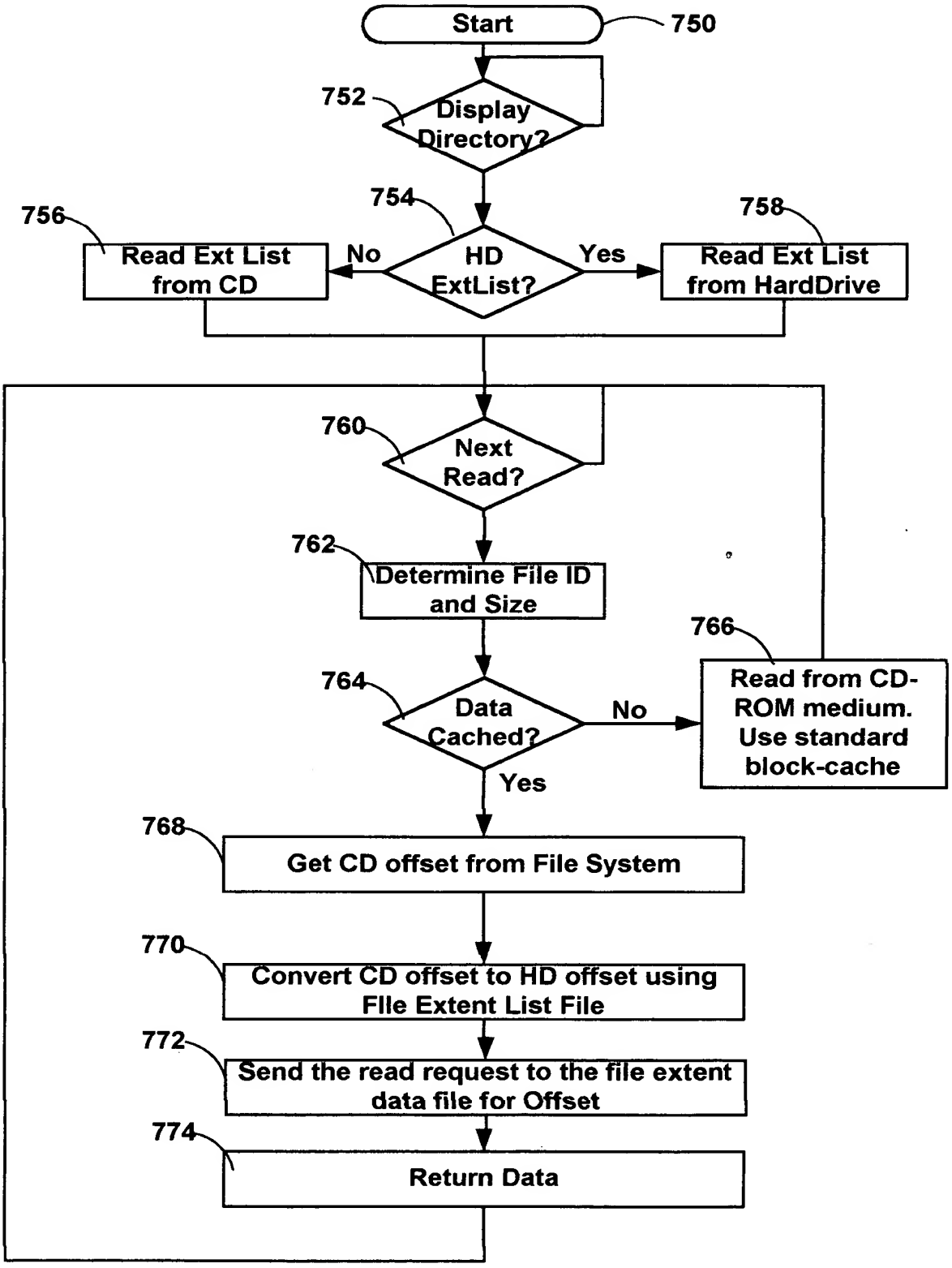
Start
750
752
Display Directory?
754
HD ExtList?
No
Yes
756
Read Ext List from CD
758
Read Ext List from HardDrive
760
Next Read?
762
Determine File ID and Size
764
Data Cached?
No
Yes
766
Read from CD-ROM medium. Use standard block-cache
768
Get CD offset from File System
770
Convert CD offset to HD offset using FIle Extent List File
772
Send the read request to the file extent data file for Offset
774
Return Data

FIG. 7B